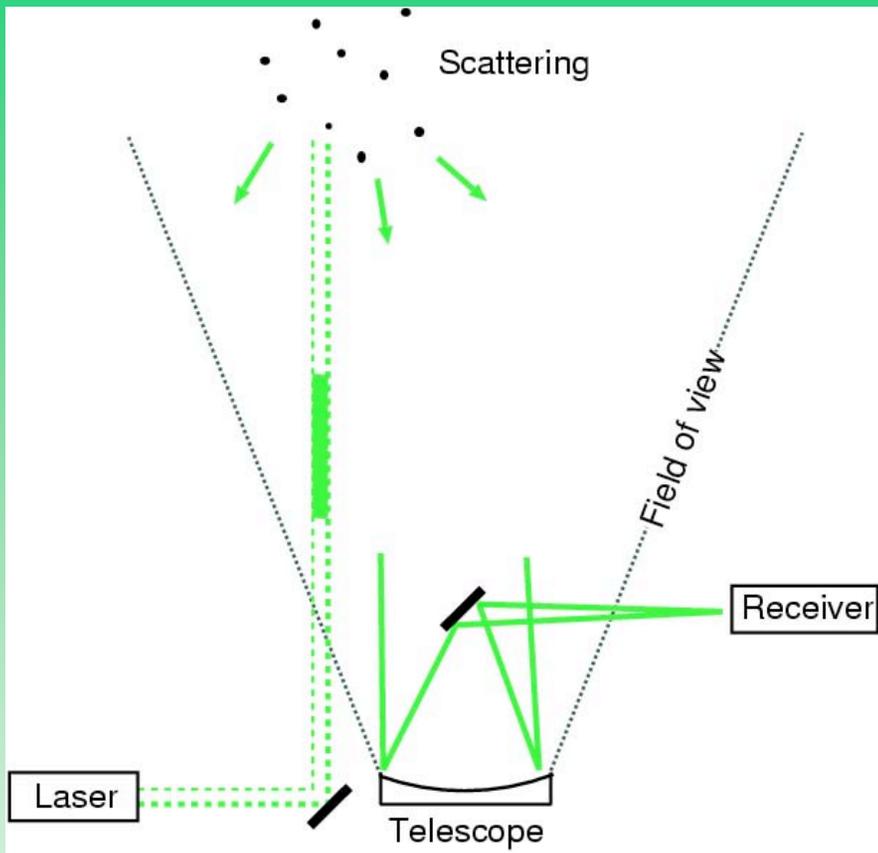


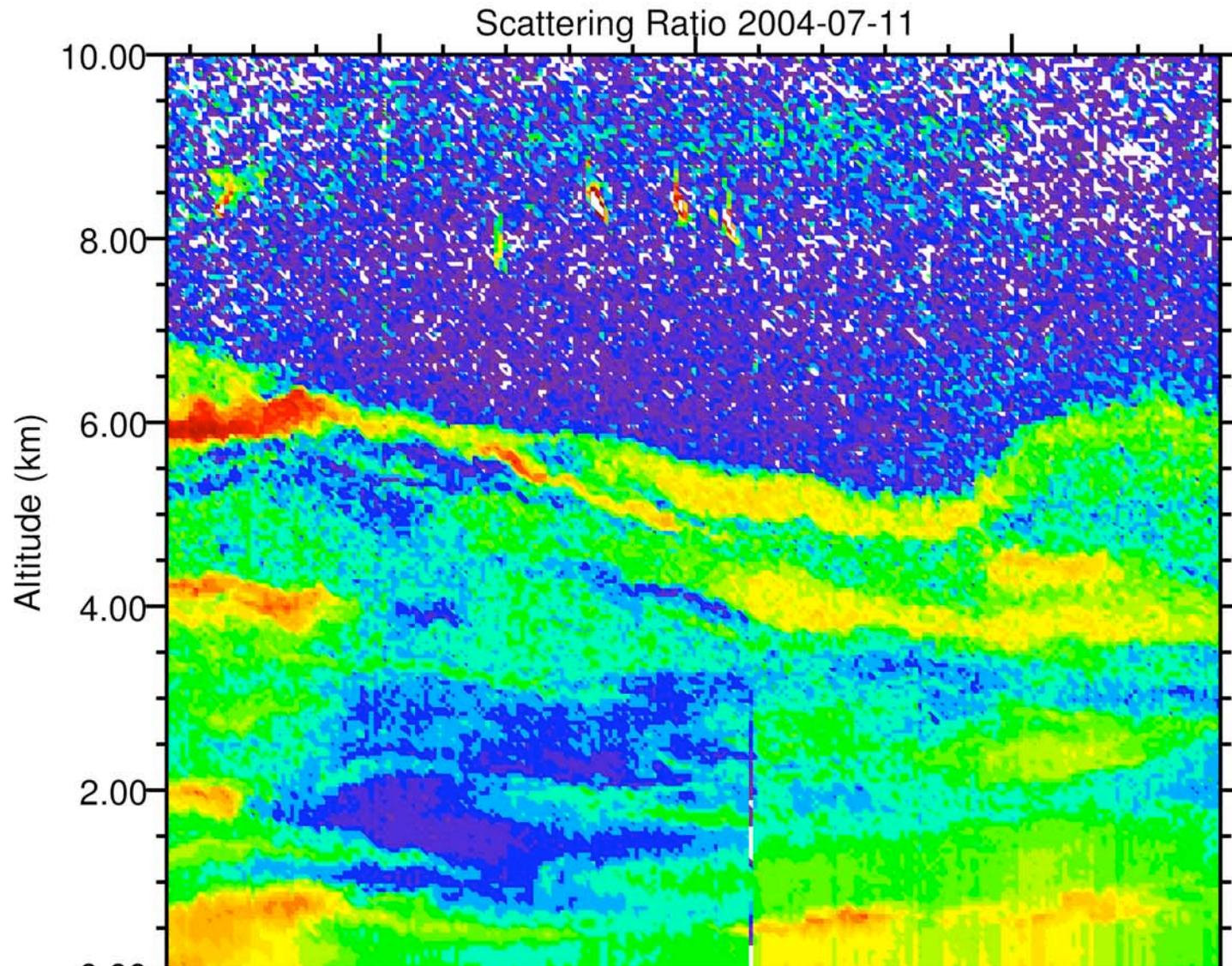
Lidar Aerosol Observations at Chebogue
During the ICARTT 2004 Summer Campaign

Bernard Firanski and Dr. Tom Duck
Dalhousie University
bern@fizz.phys.dal.ca

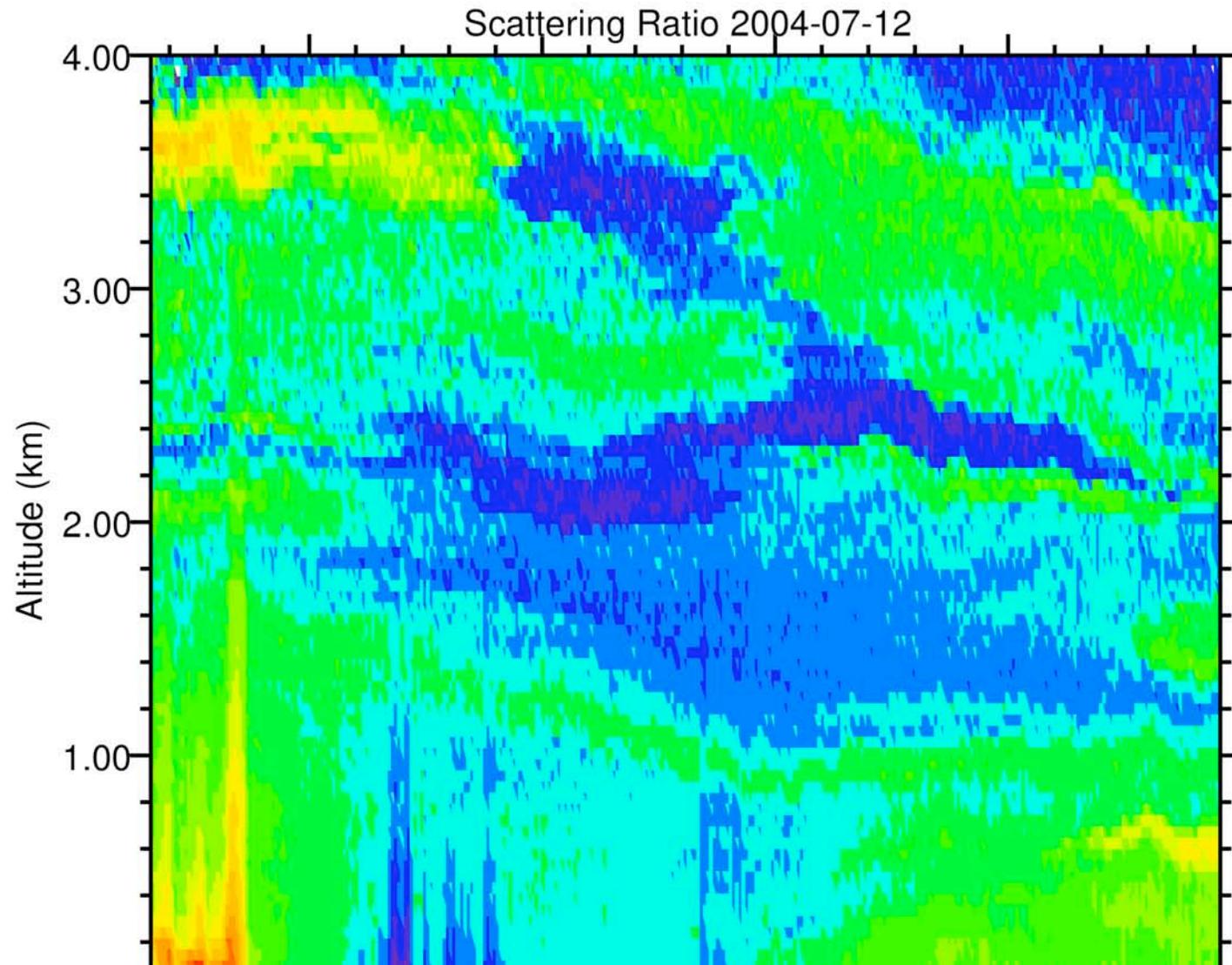
System Transmitter



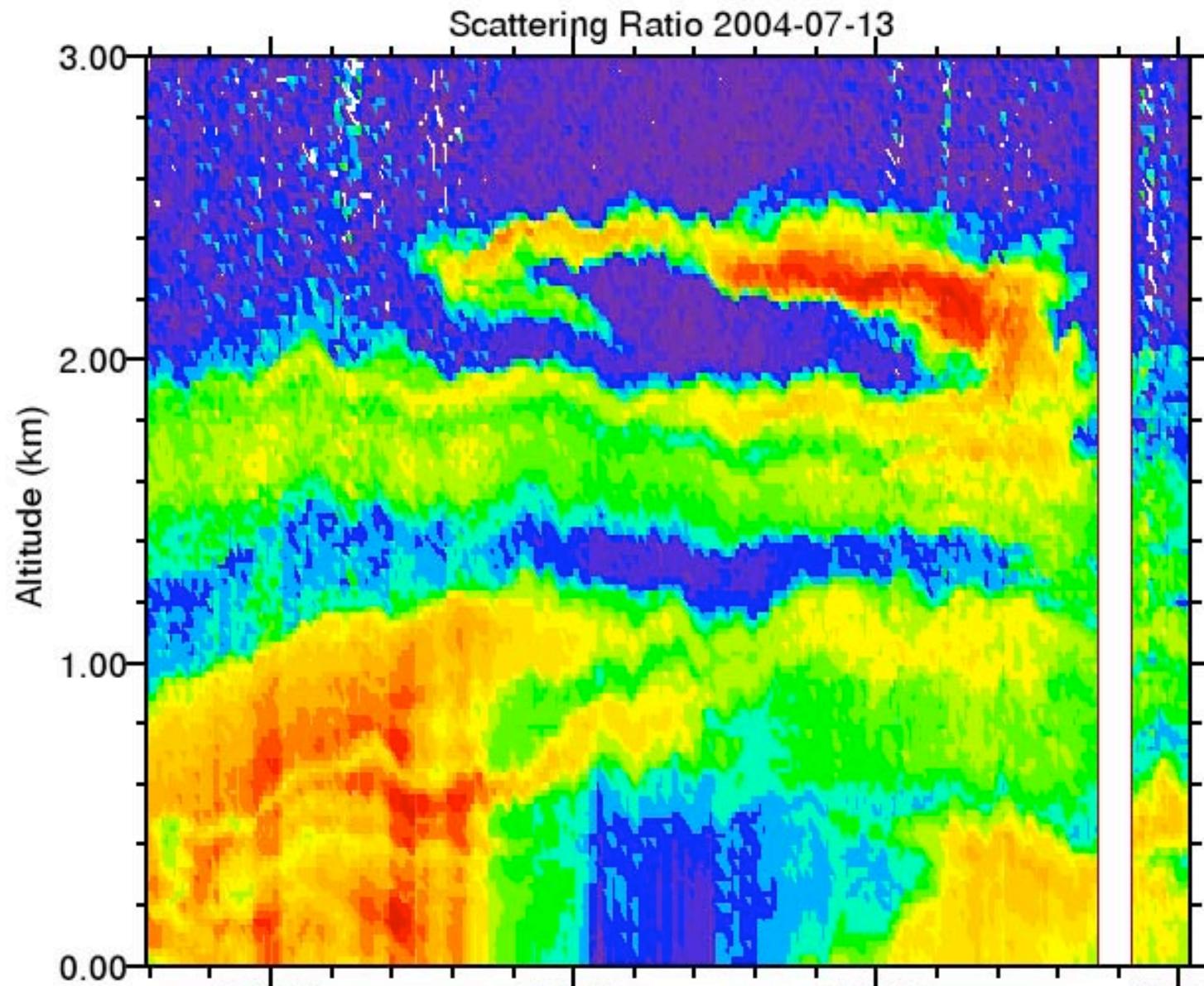
July 11 Soot Plume Profile



July 12 Continued Soot Plume Observations

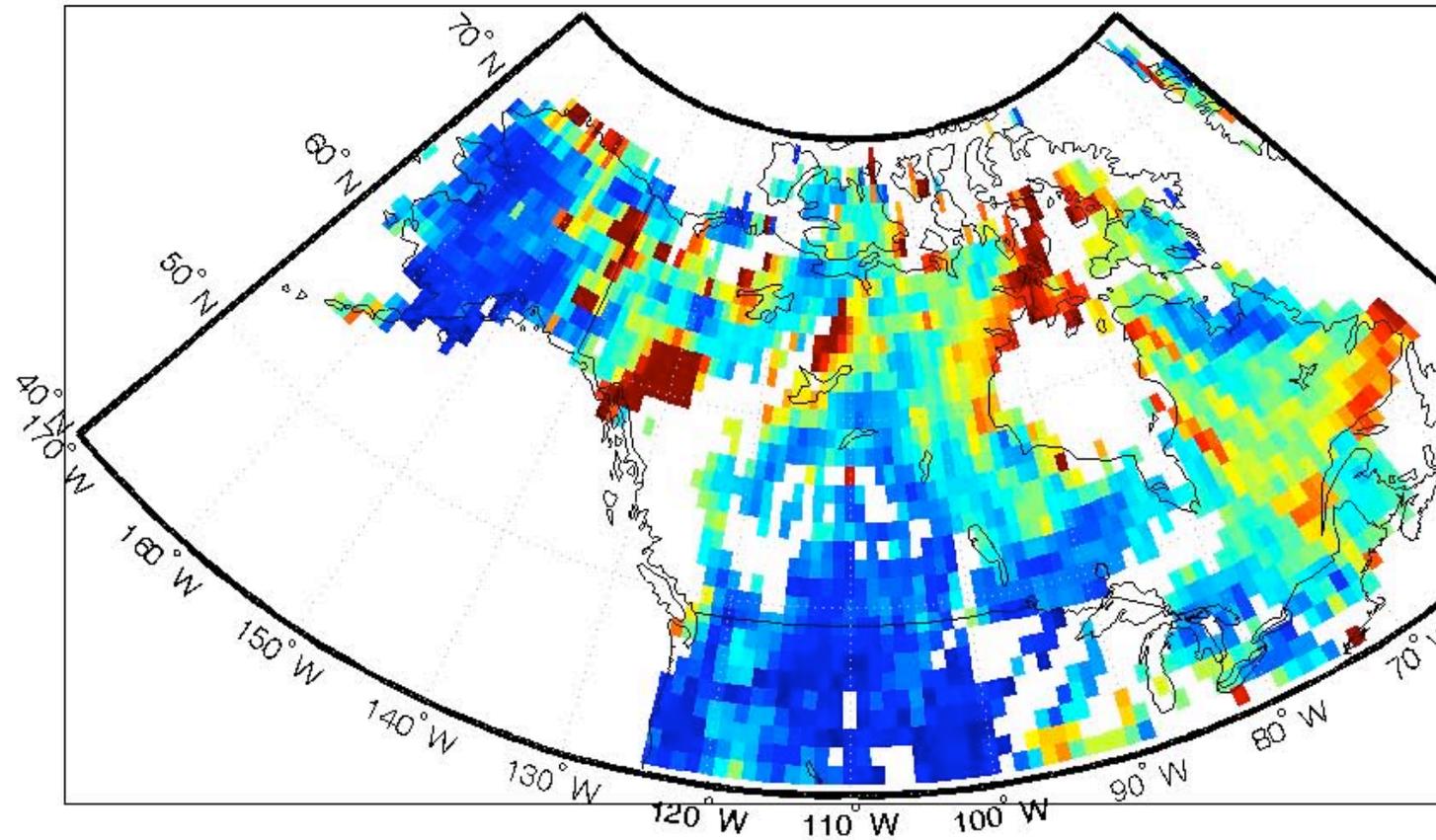


July 13 Plume End?



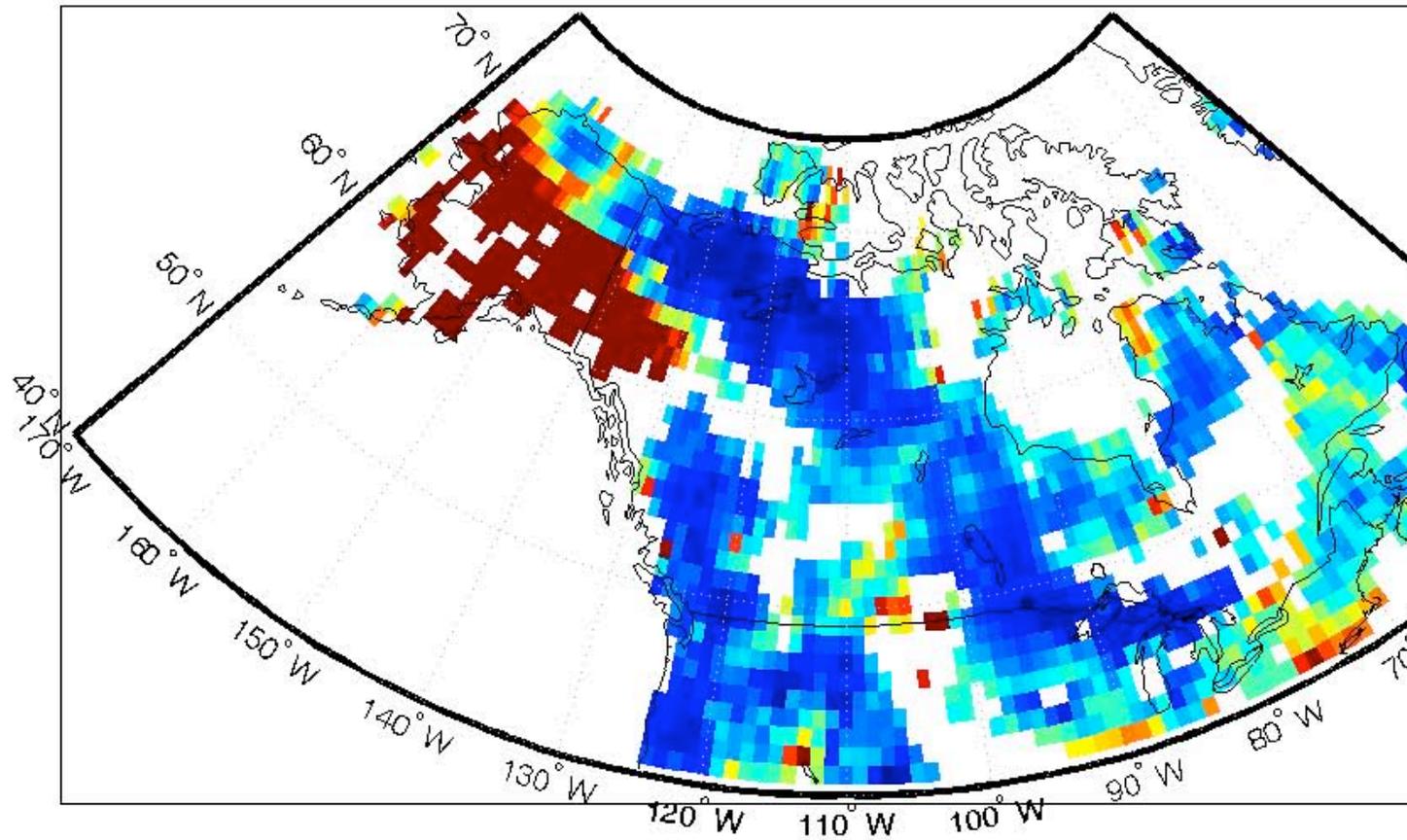
July 11 MODIS Aerosol Optical De

MODIS Level 3 Optical Depth - 20040711



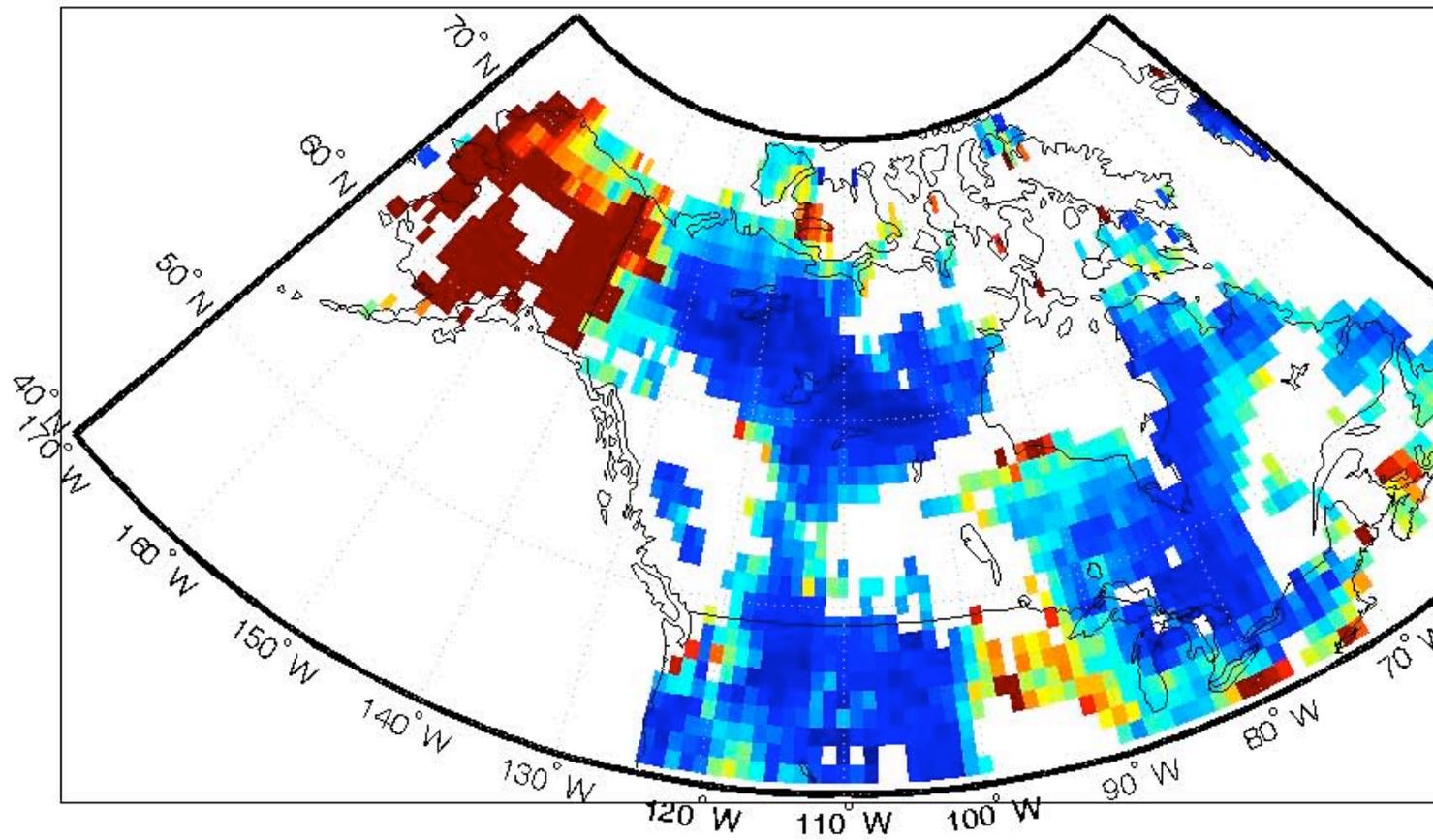
July 1

MODIS Level 3 Optical Depth - 20040701



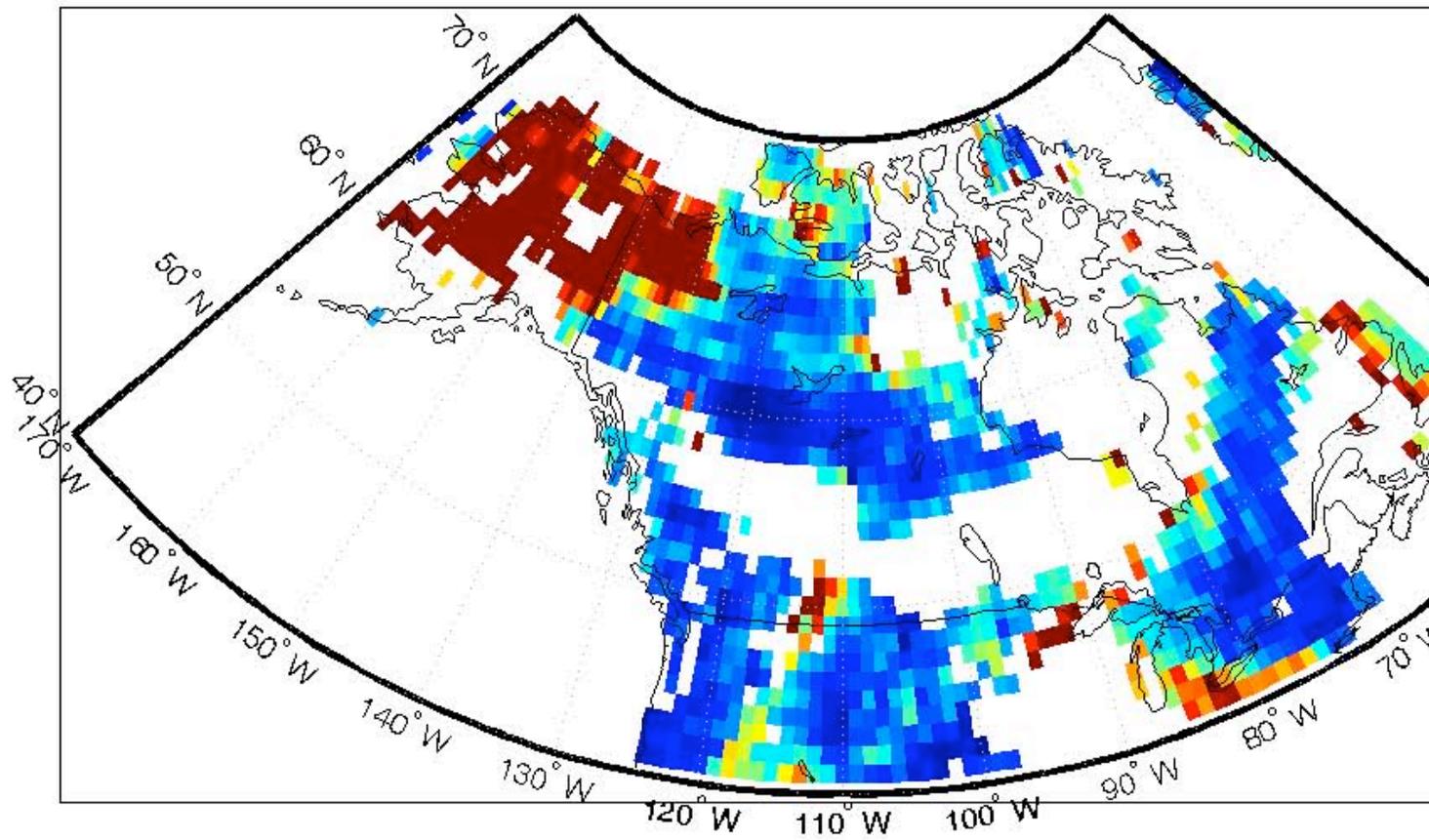
July 2

MODIS Level 3 Optical Depth - 20040702



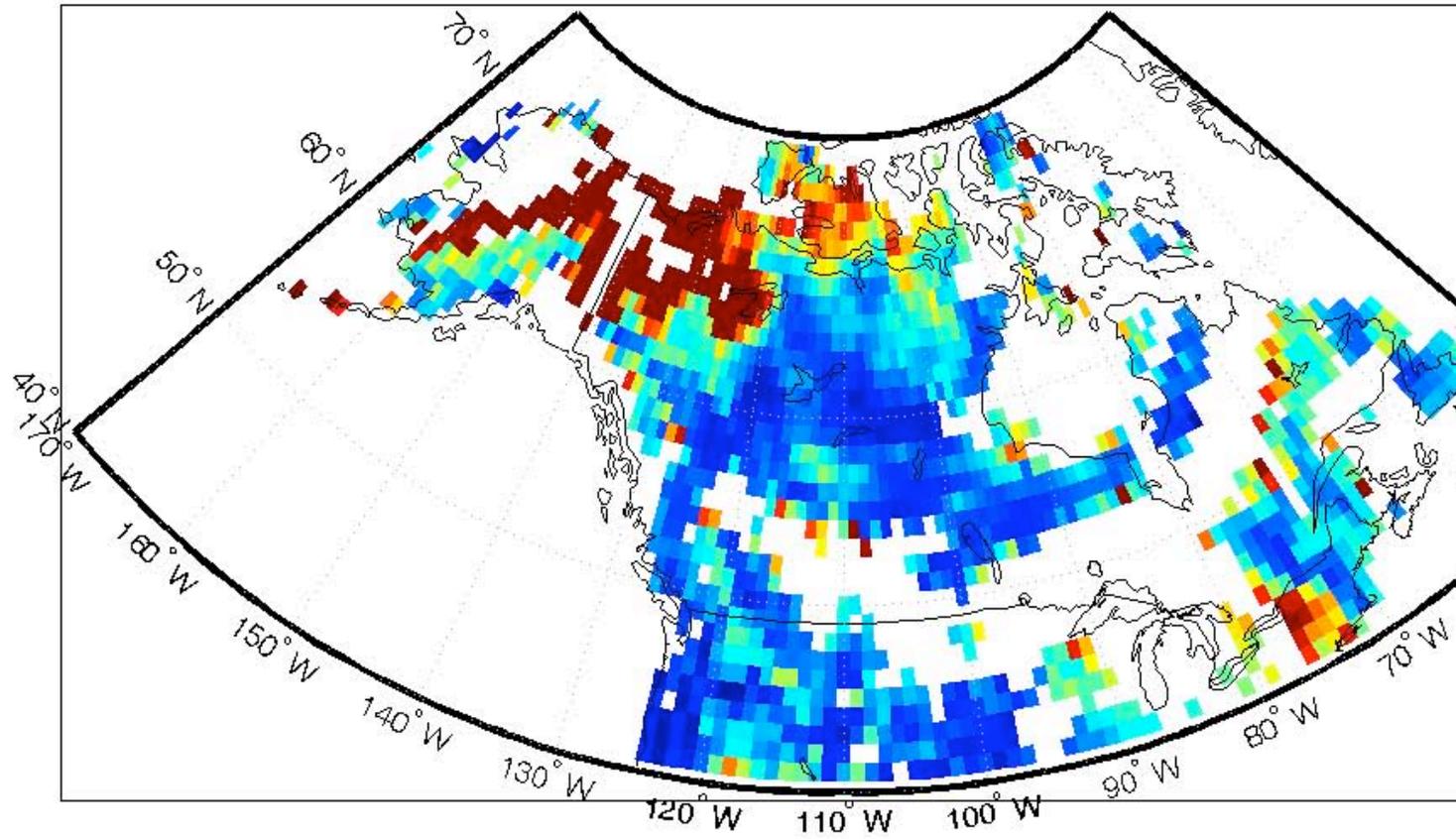
July 3

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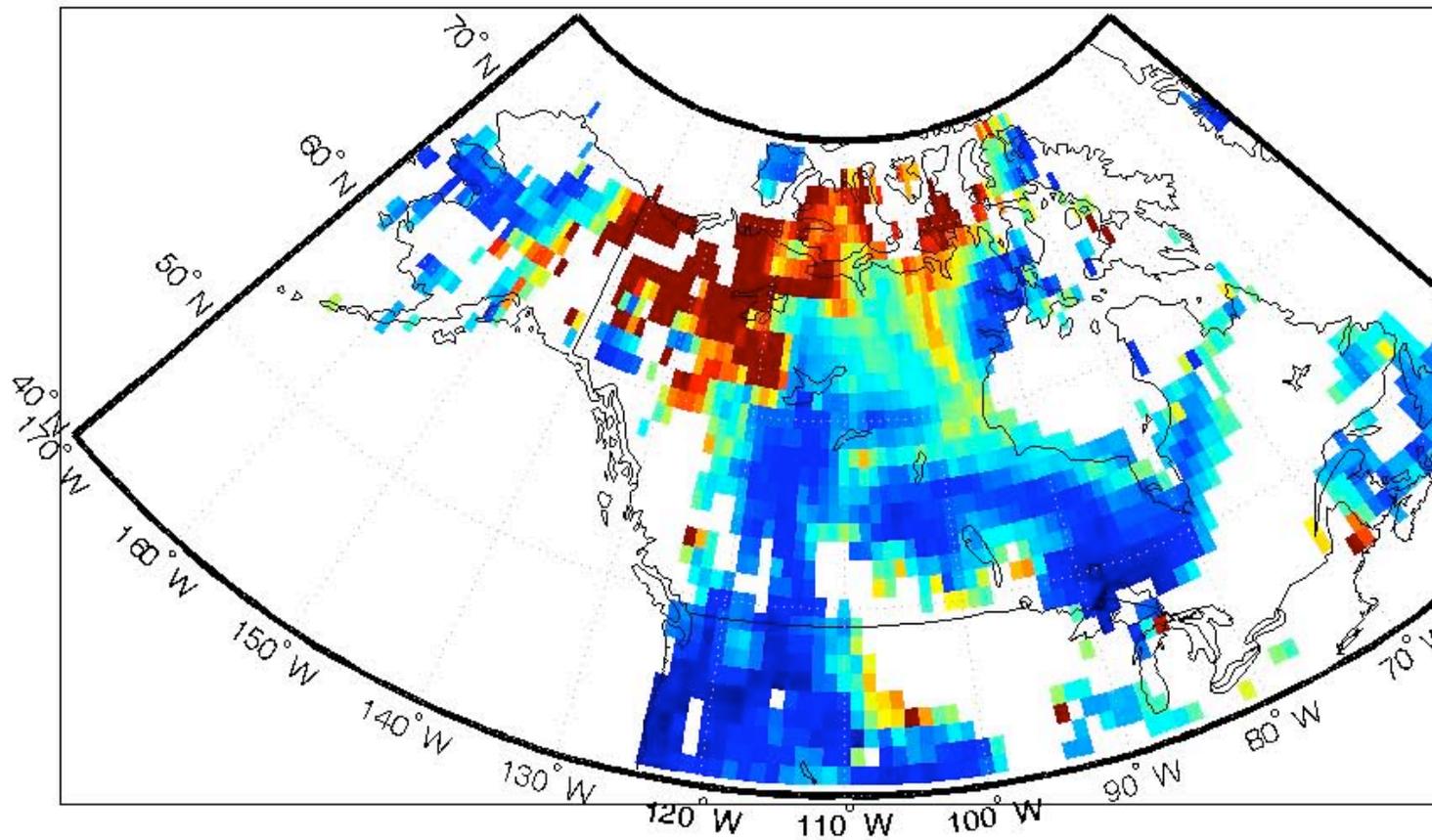
July 4

MODIS Level 3 Optical Depth - 20040704



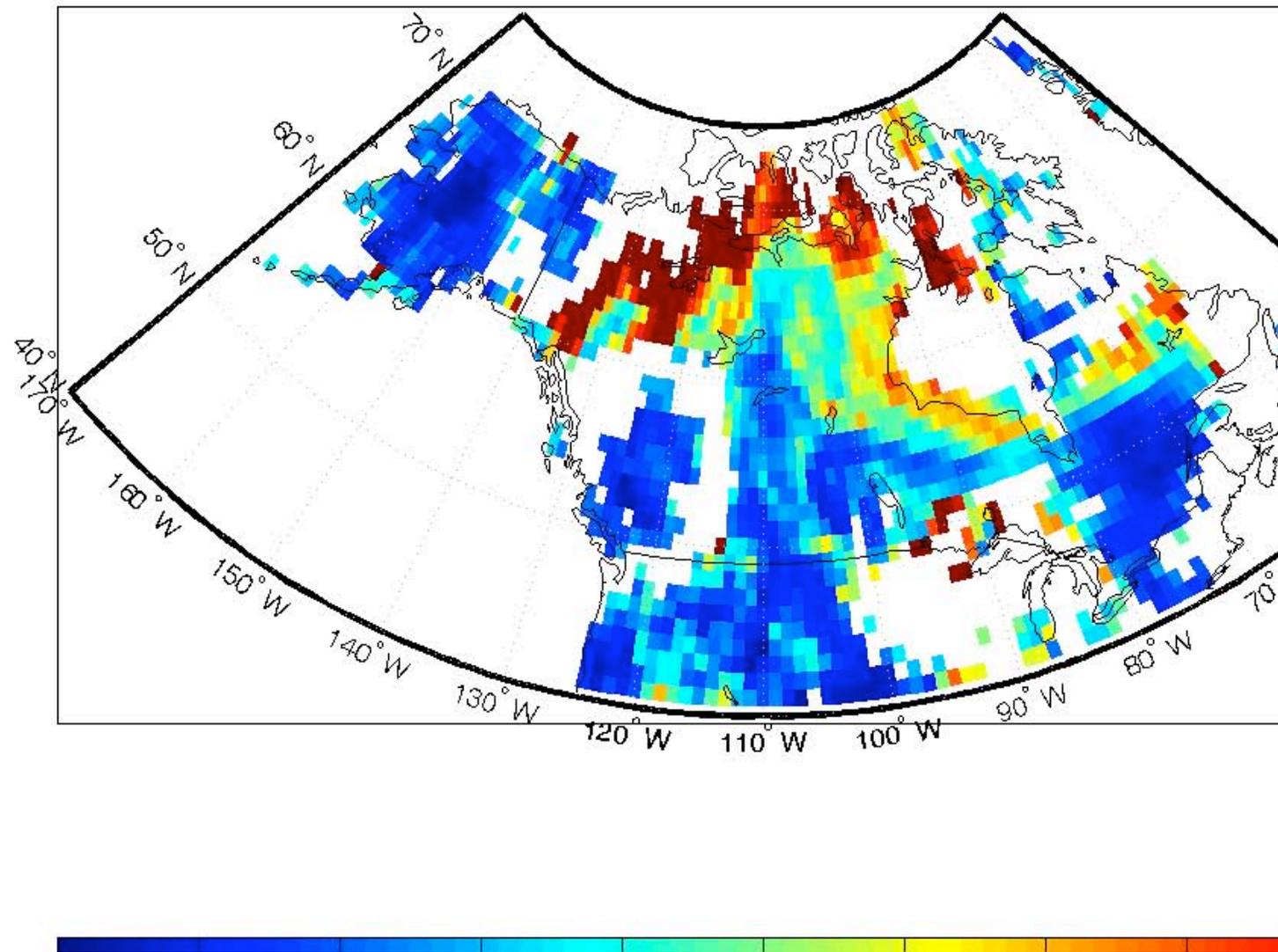
July 5

MODIS Level 3 Optical Depth - 20040705



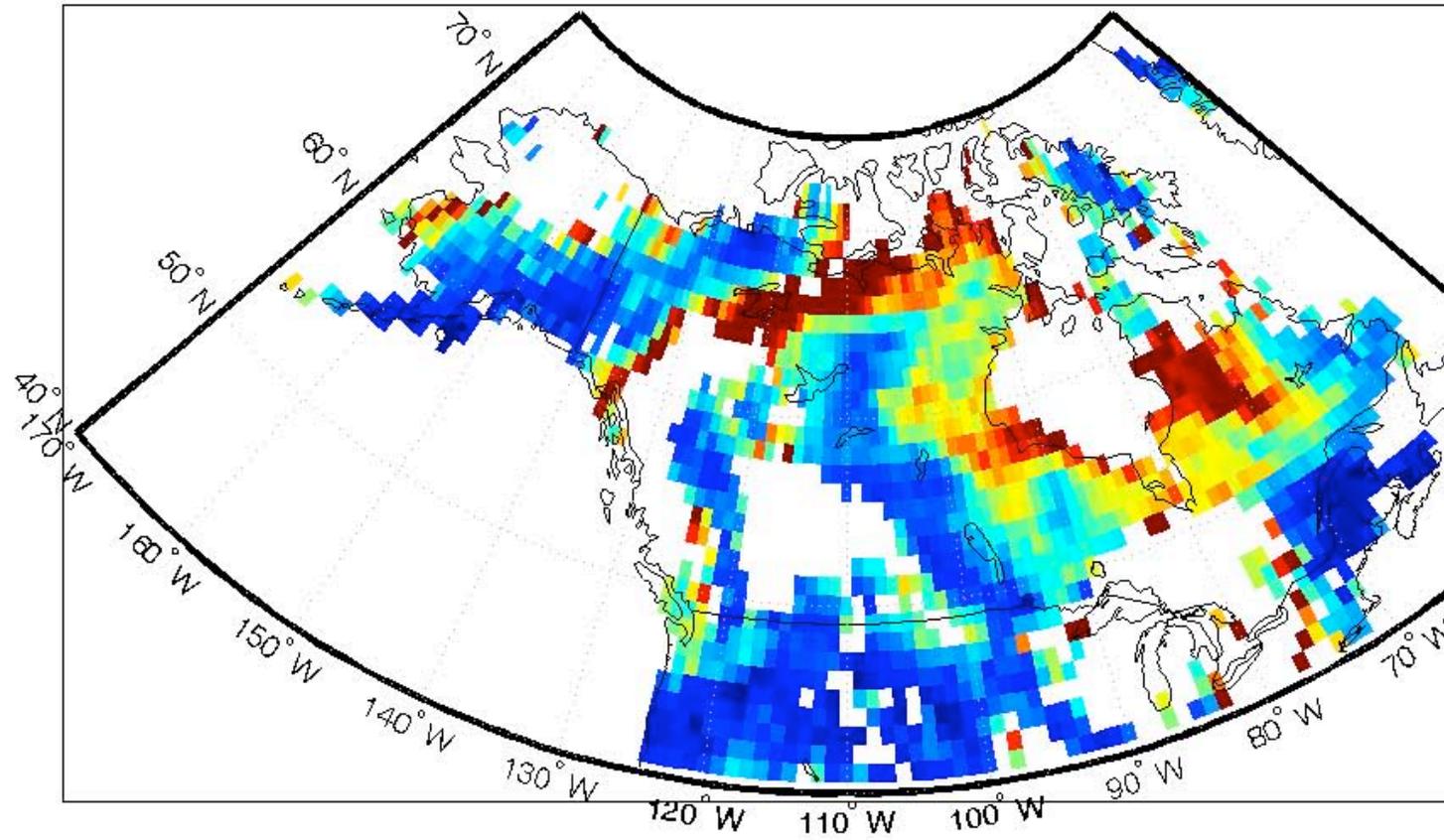
July 6

MODIS Level 3 Optical Depth - 20040706



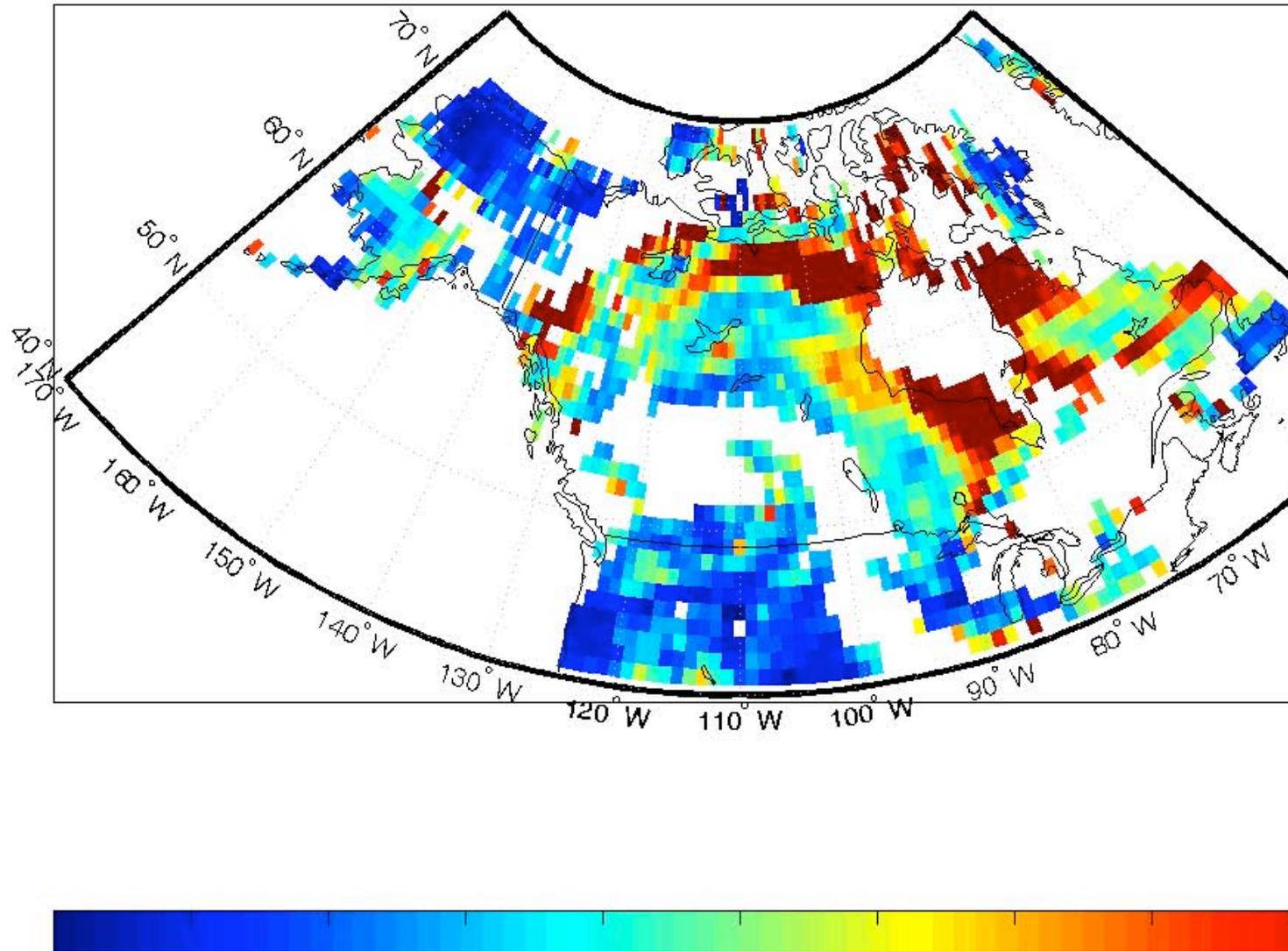
July 7

MODIS Level 3 Optical Depth - 20040707



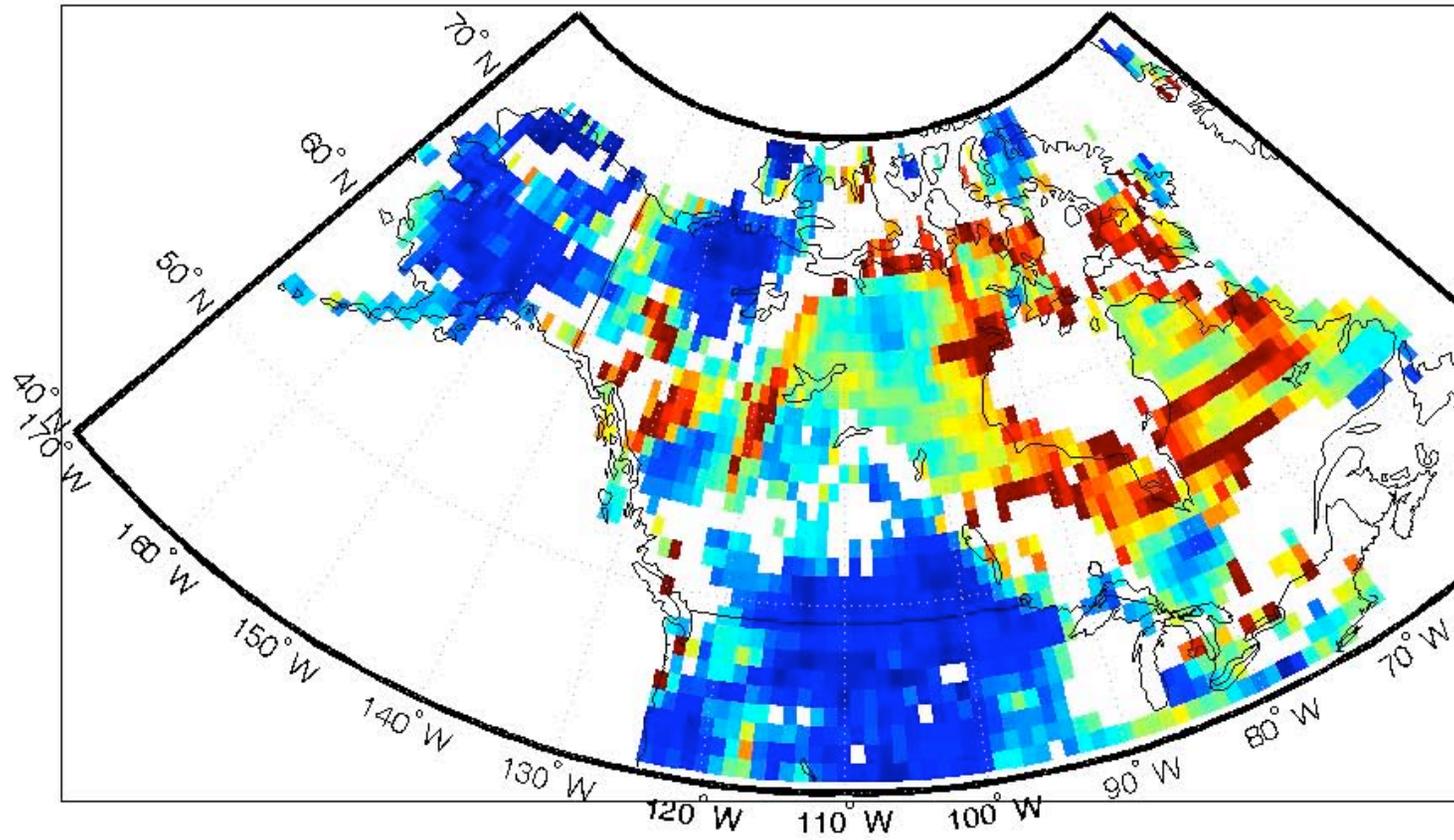
July 8

MODIS Level 3 Optical Depth - 20040708



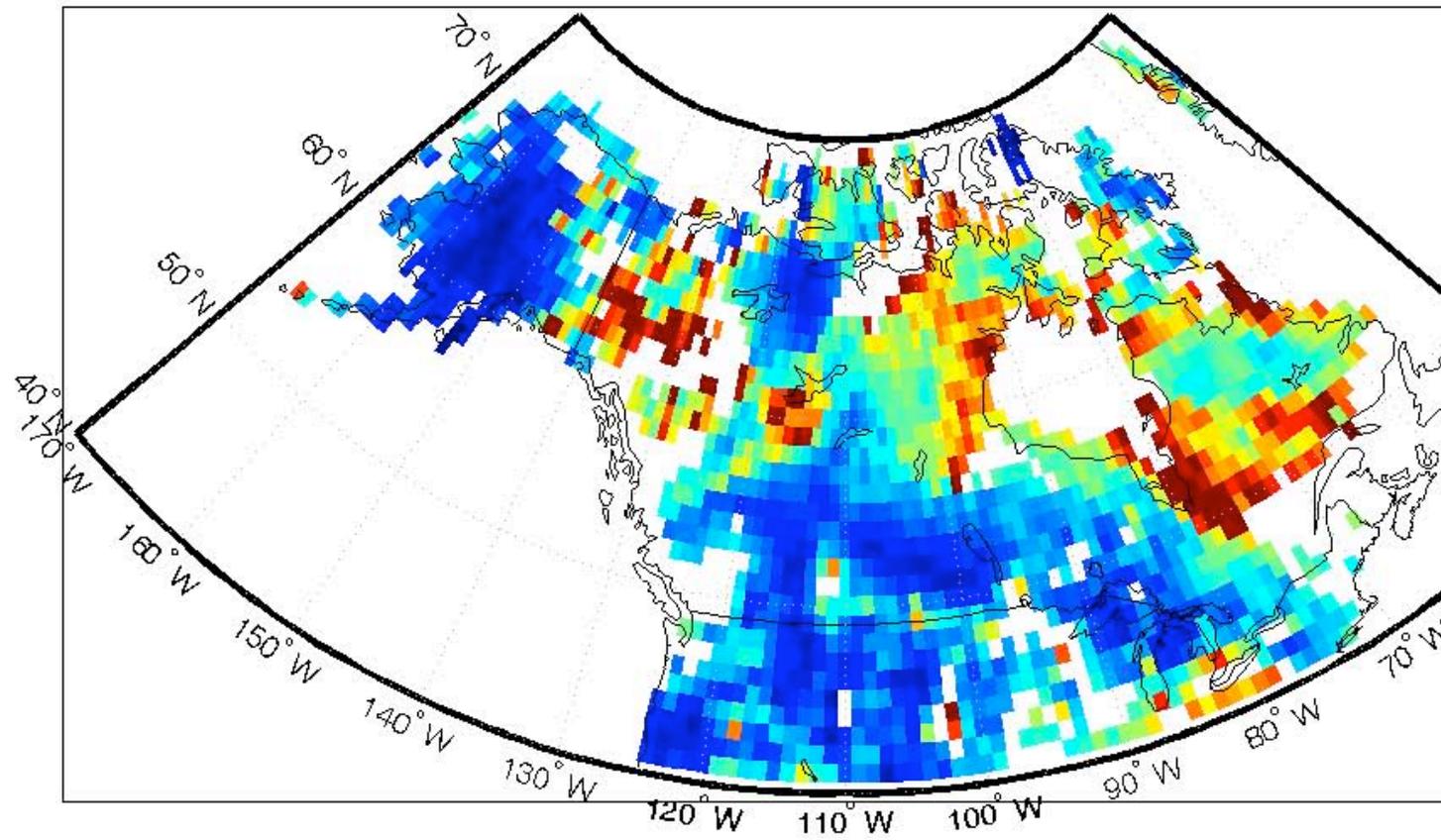
July 9

MODIS Level 3 Optical Depth - 20040709



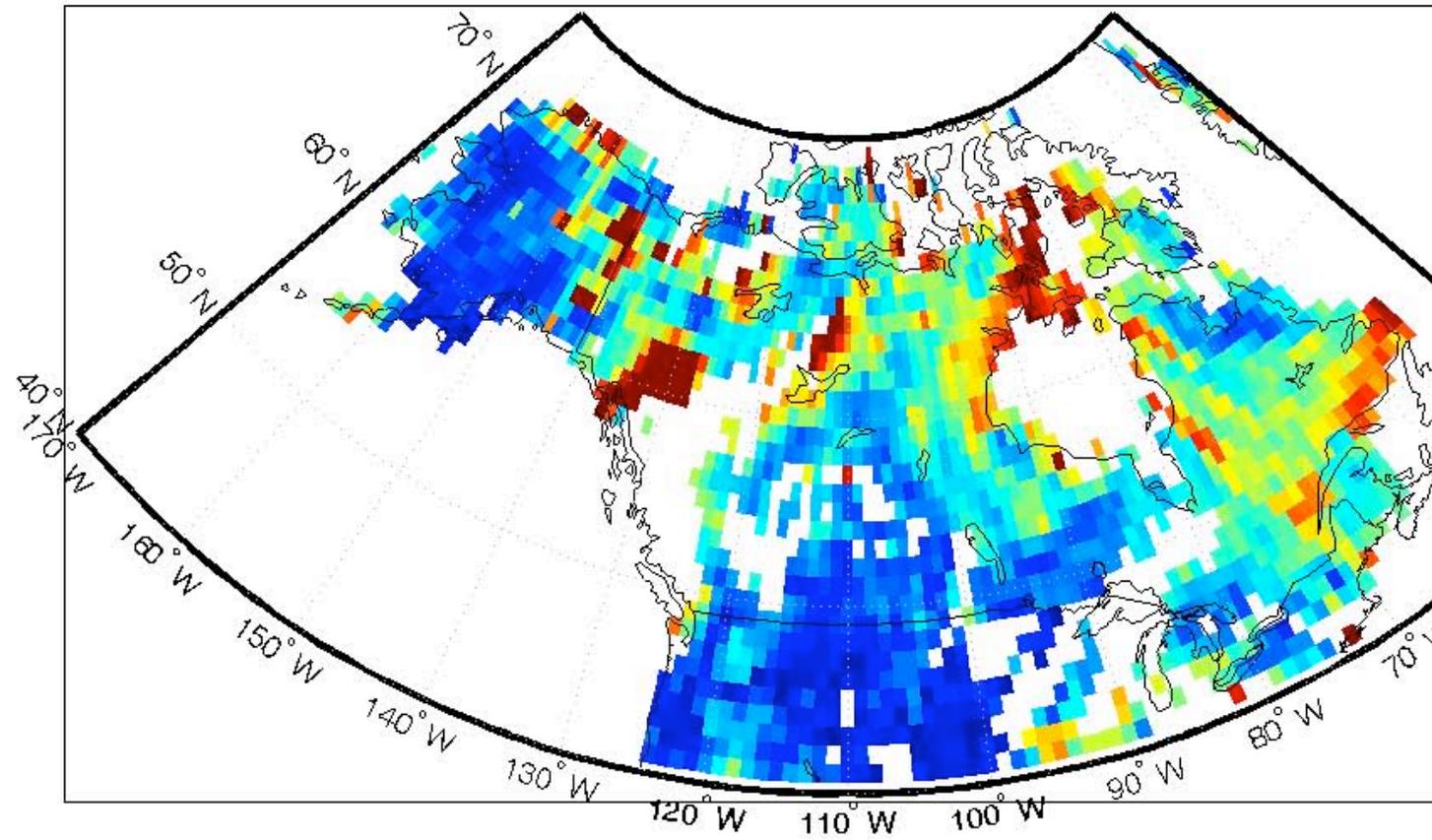
July 10

MODIS Level 3 Optical Depth - 20040710



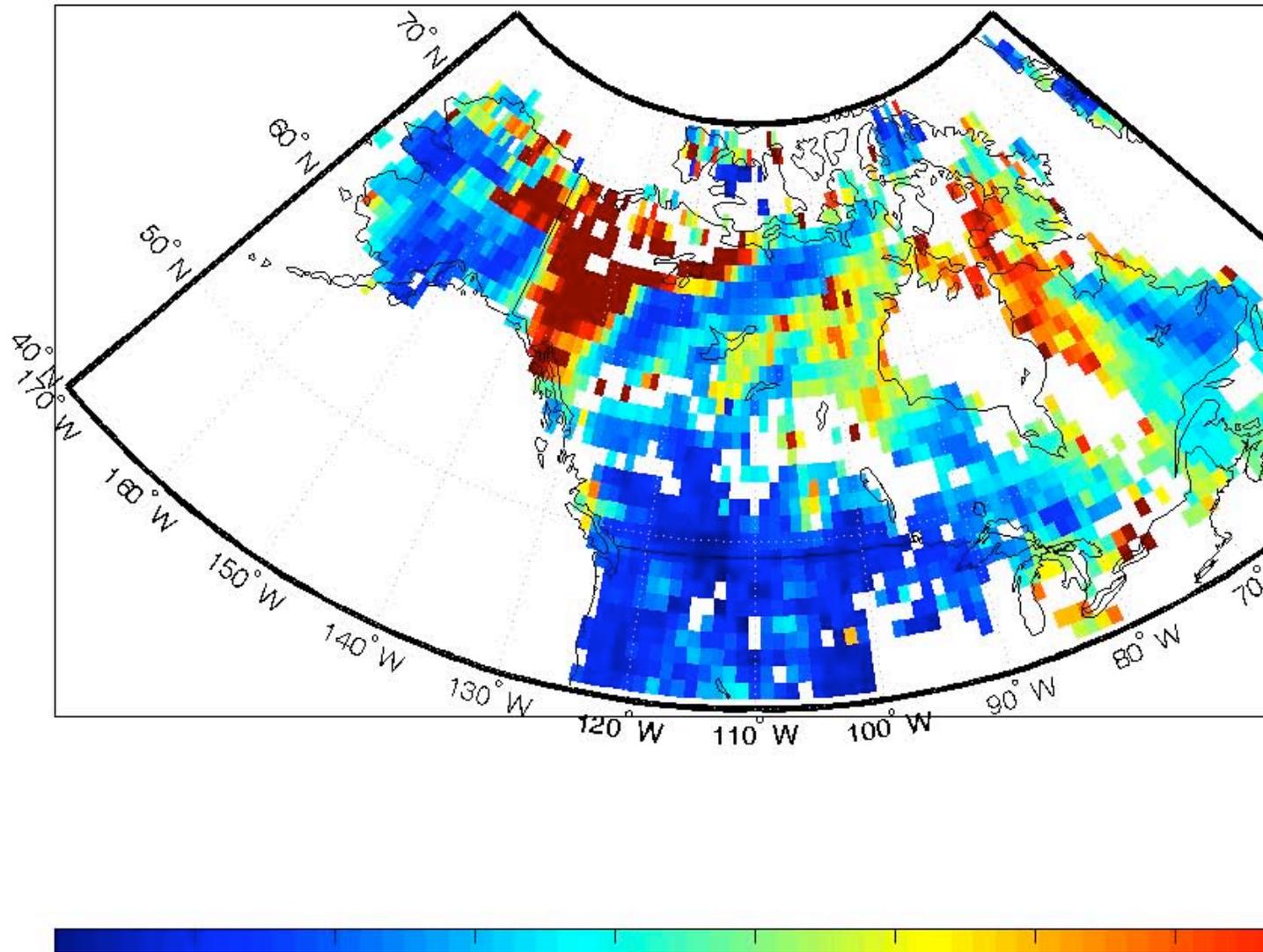
July 11

MODIS Level 3 Optical Depth - 20040711



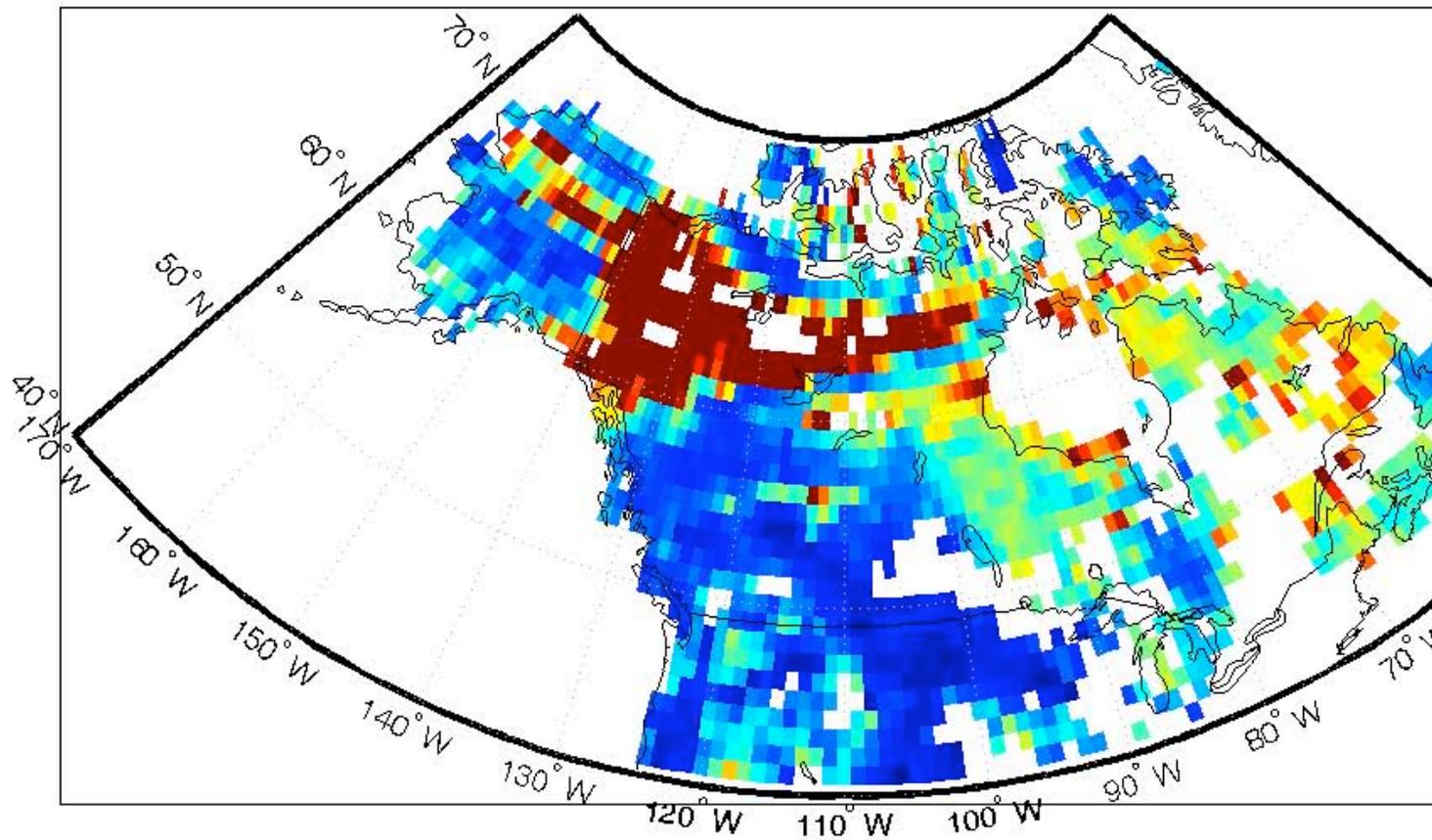
July 12

MODIS Level 3 Optical Depth - 20040712



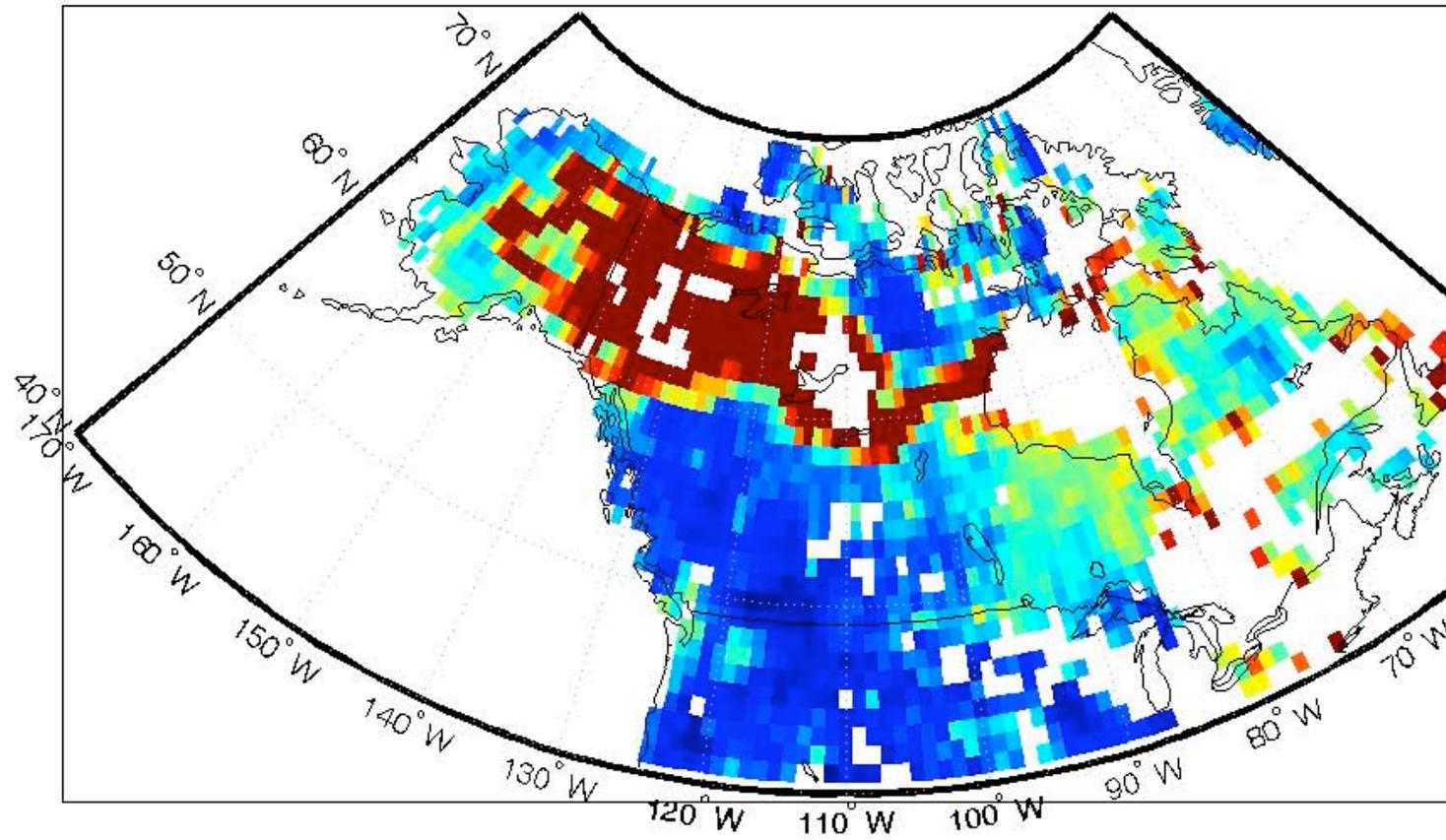
July 13

MODIS Level 3 Optical Depth - 20040713



July 14

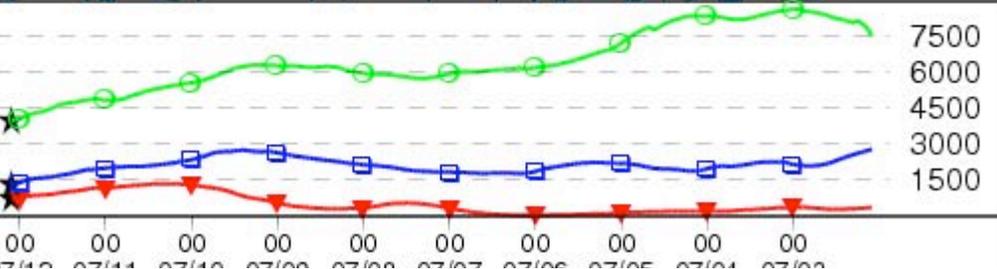
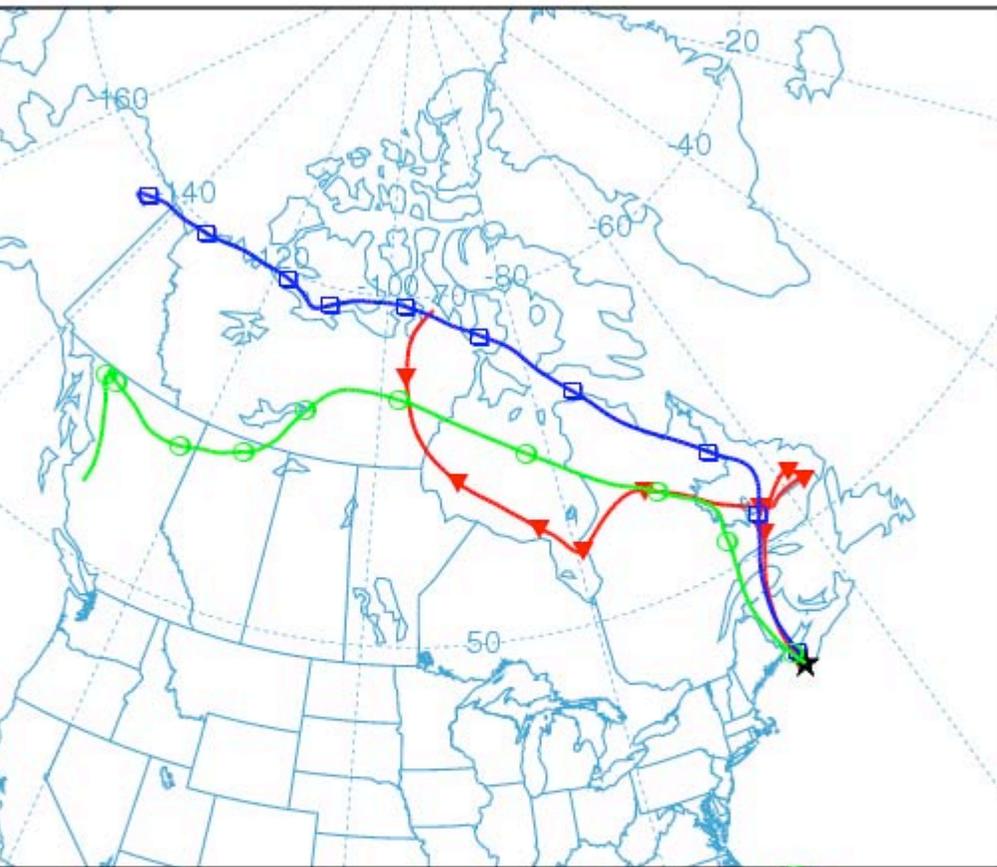
MODIS Level 3 Optical Depth - 20040714



July 11 Chebogue Trajectories

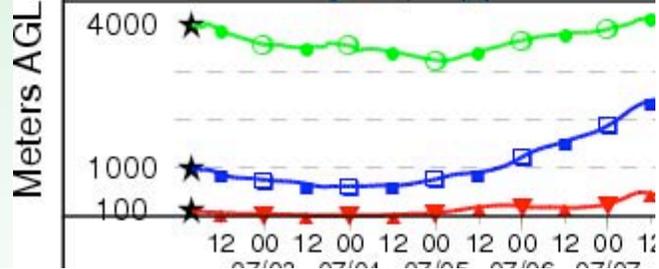
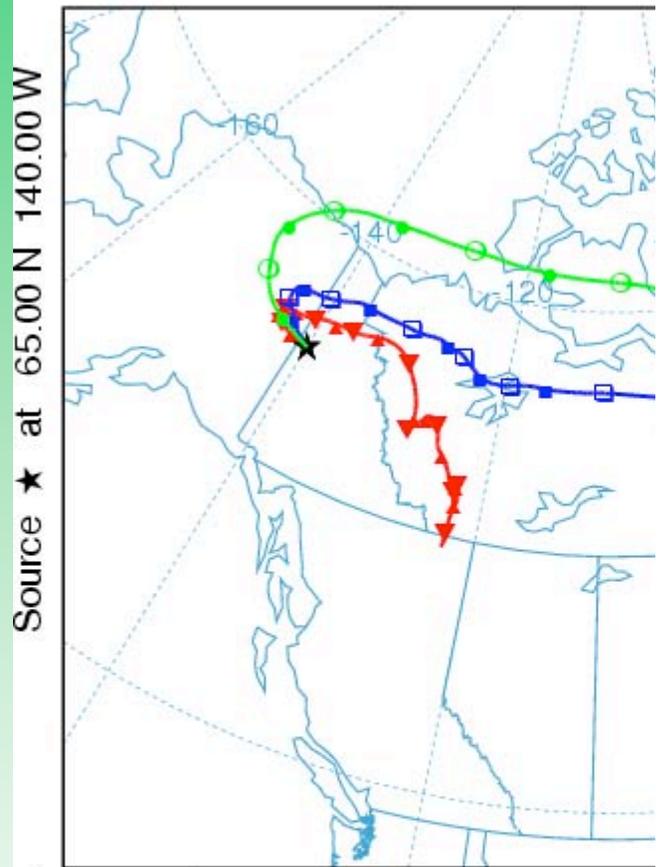
NOAA HYSPLIT MODEL

Backward trajectories ending at 02 UTC 12 Jul 04
FNL Meteorological Data



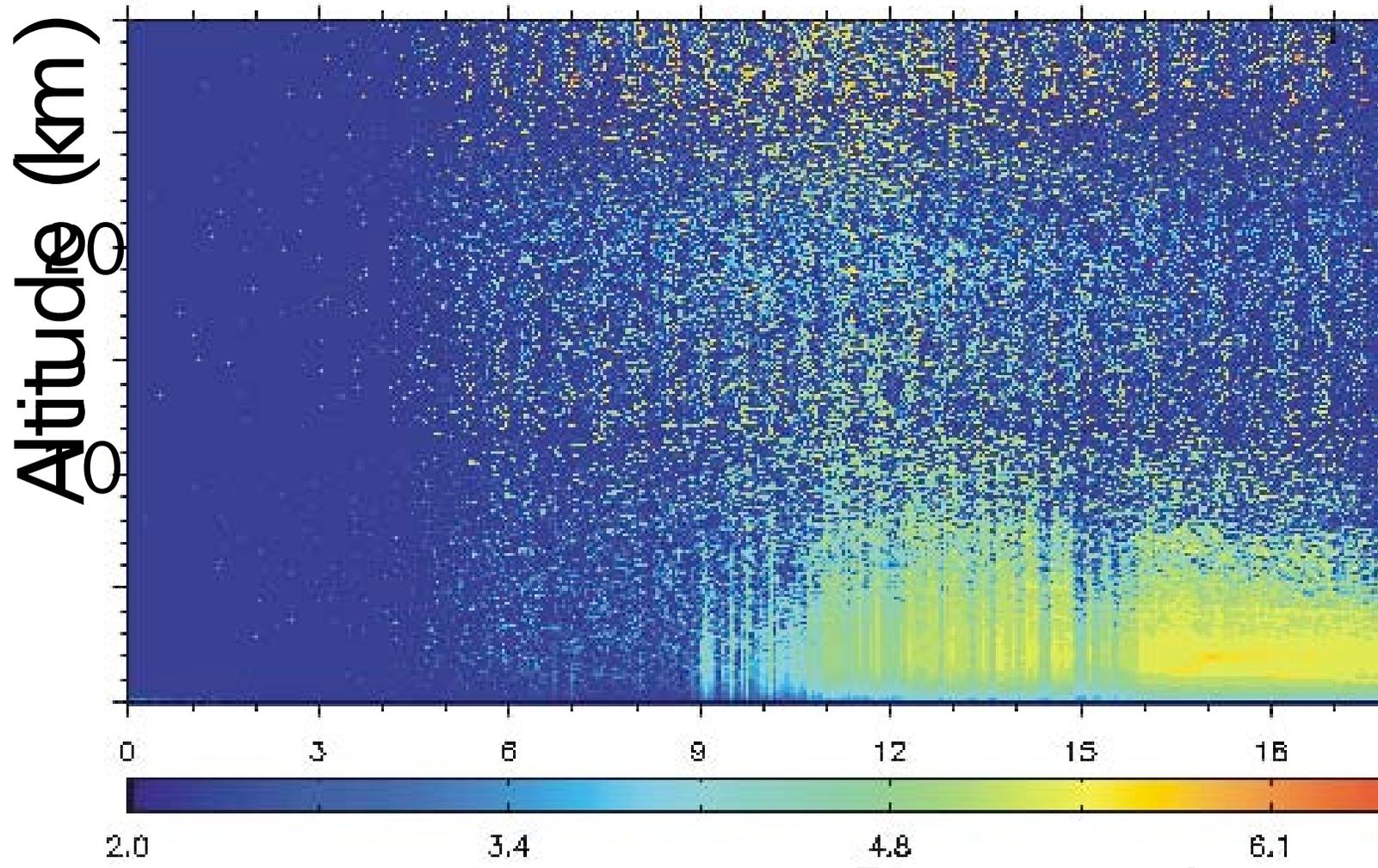
NOAA HYSPL

Forward trajectories startir
FNL Meteoro



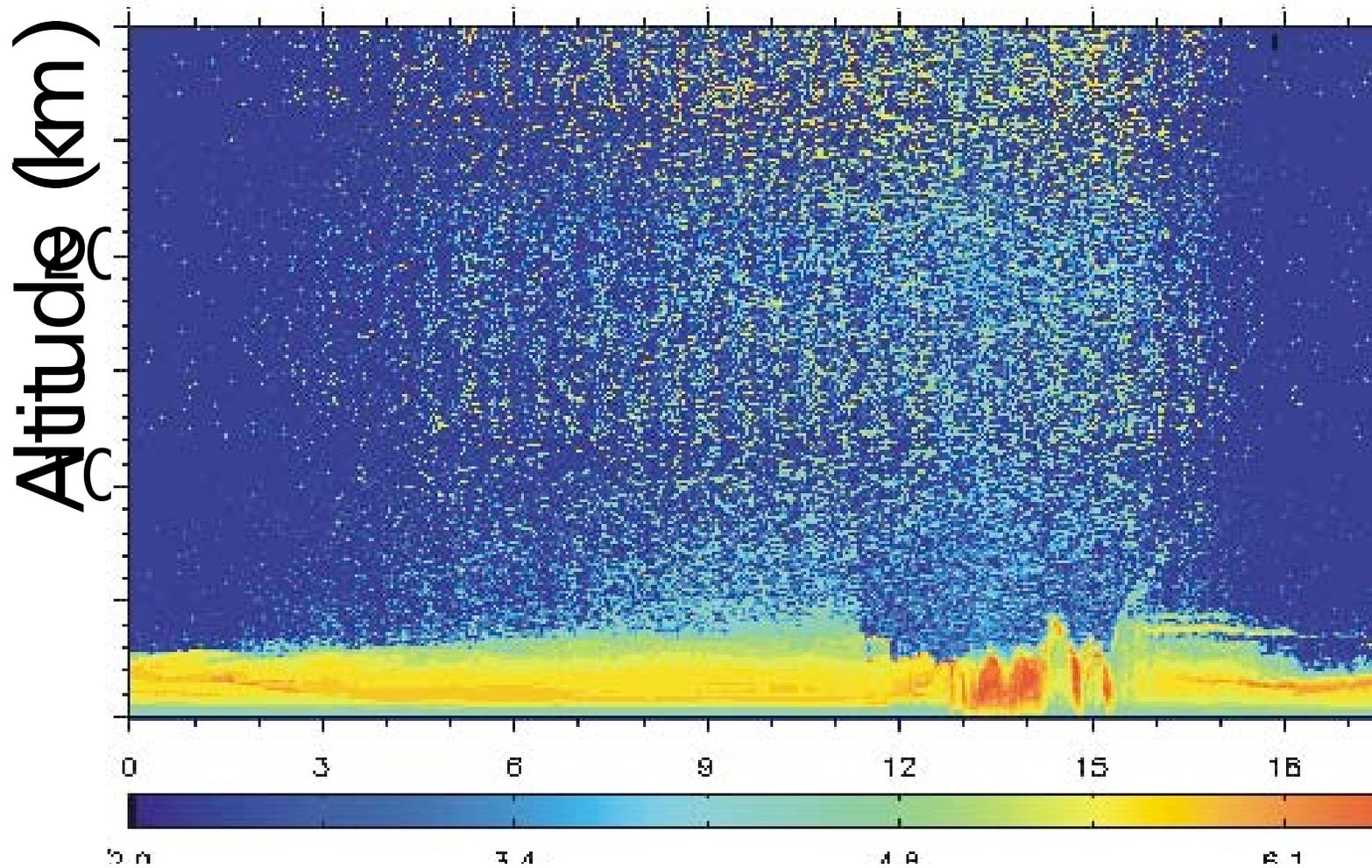
Alaska

July 02 2004 Scatter



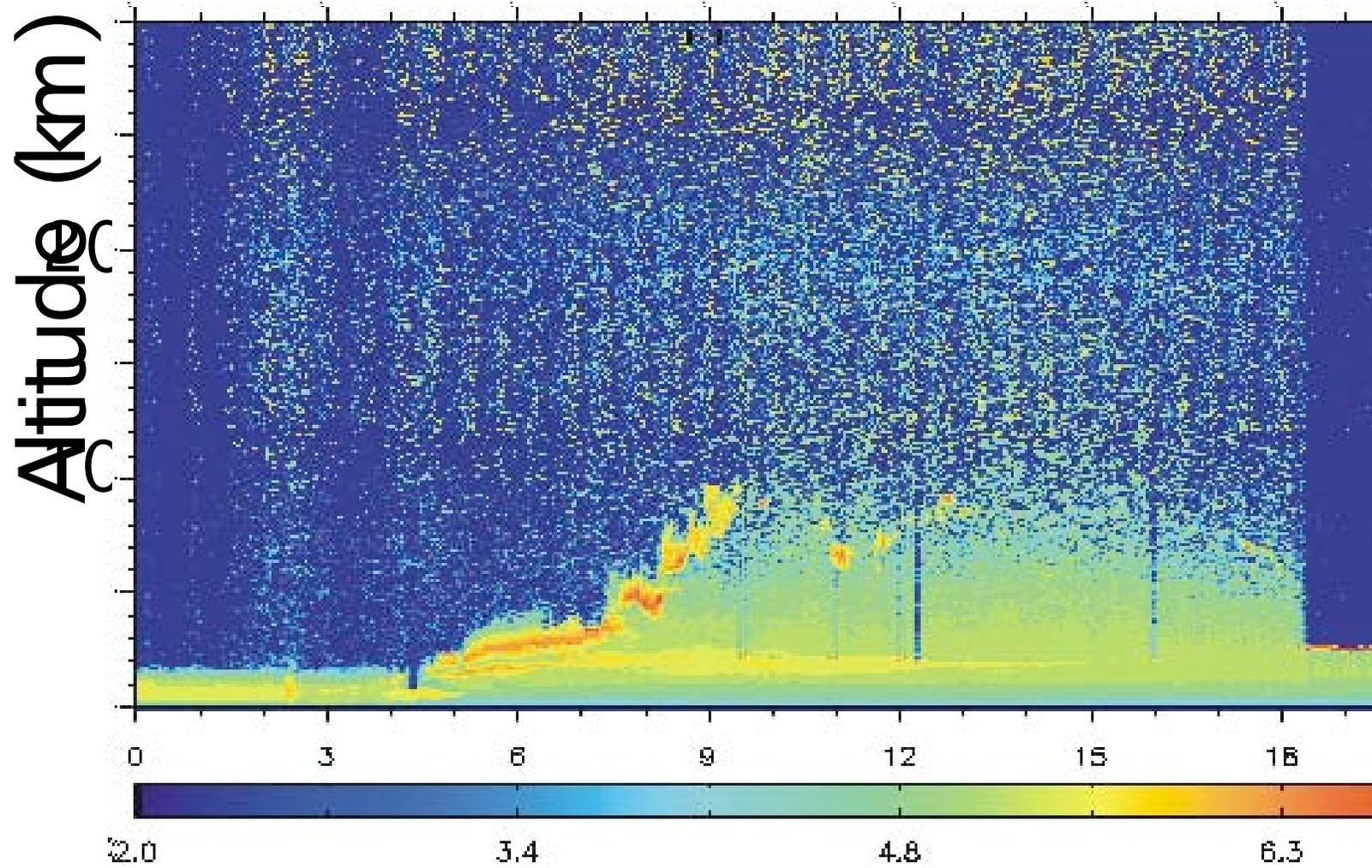
Continuing Lidar Plume Observations in Bar

July 03 2004 Scatter



End of plume event in Barrow

July 04 2004 Scatter

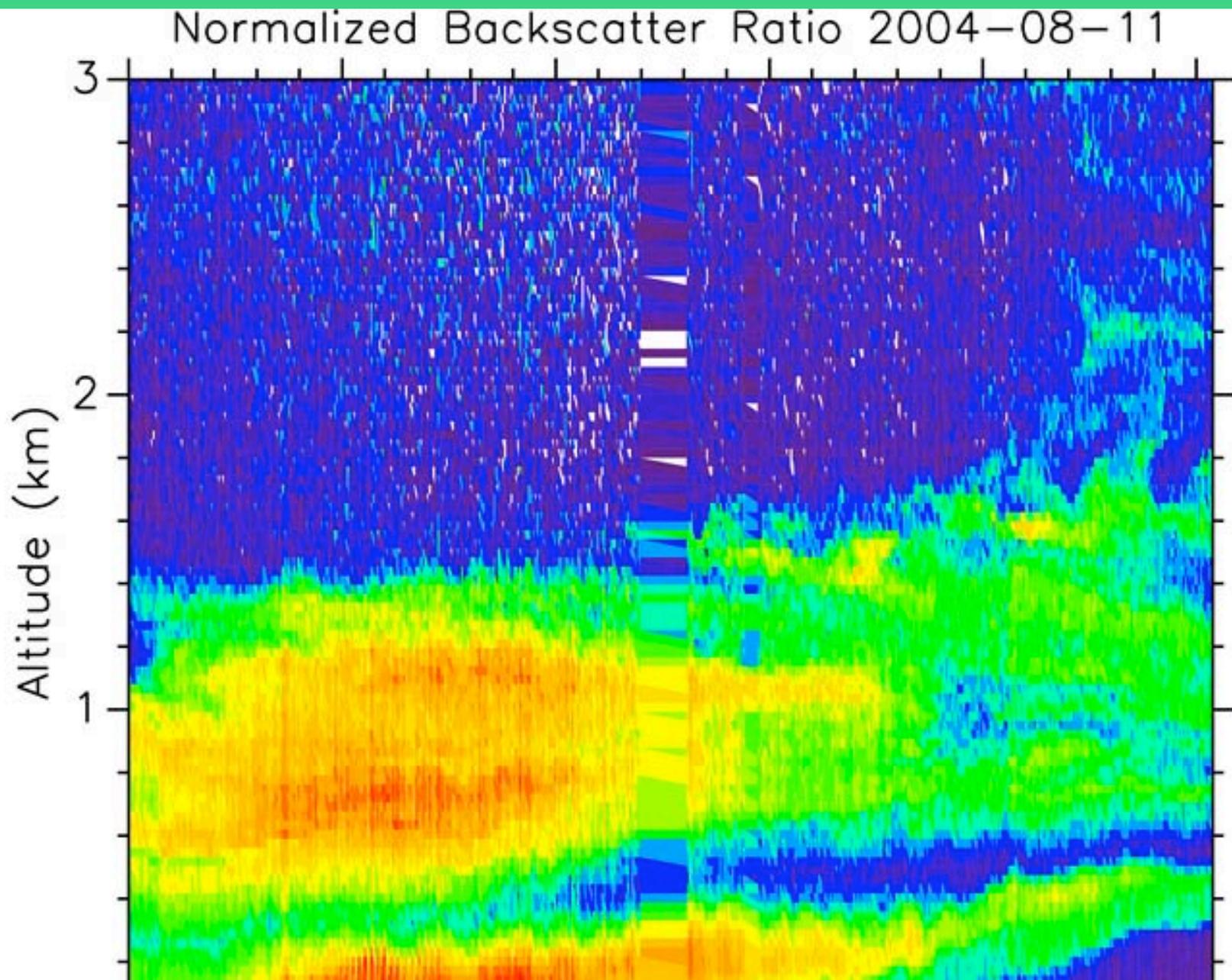


Barrow Plume Trajectories



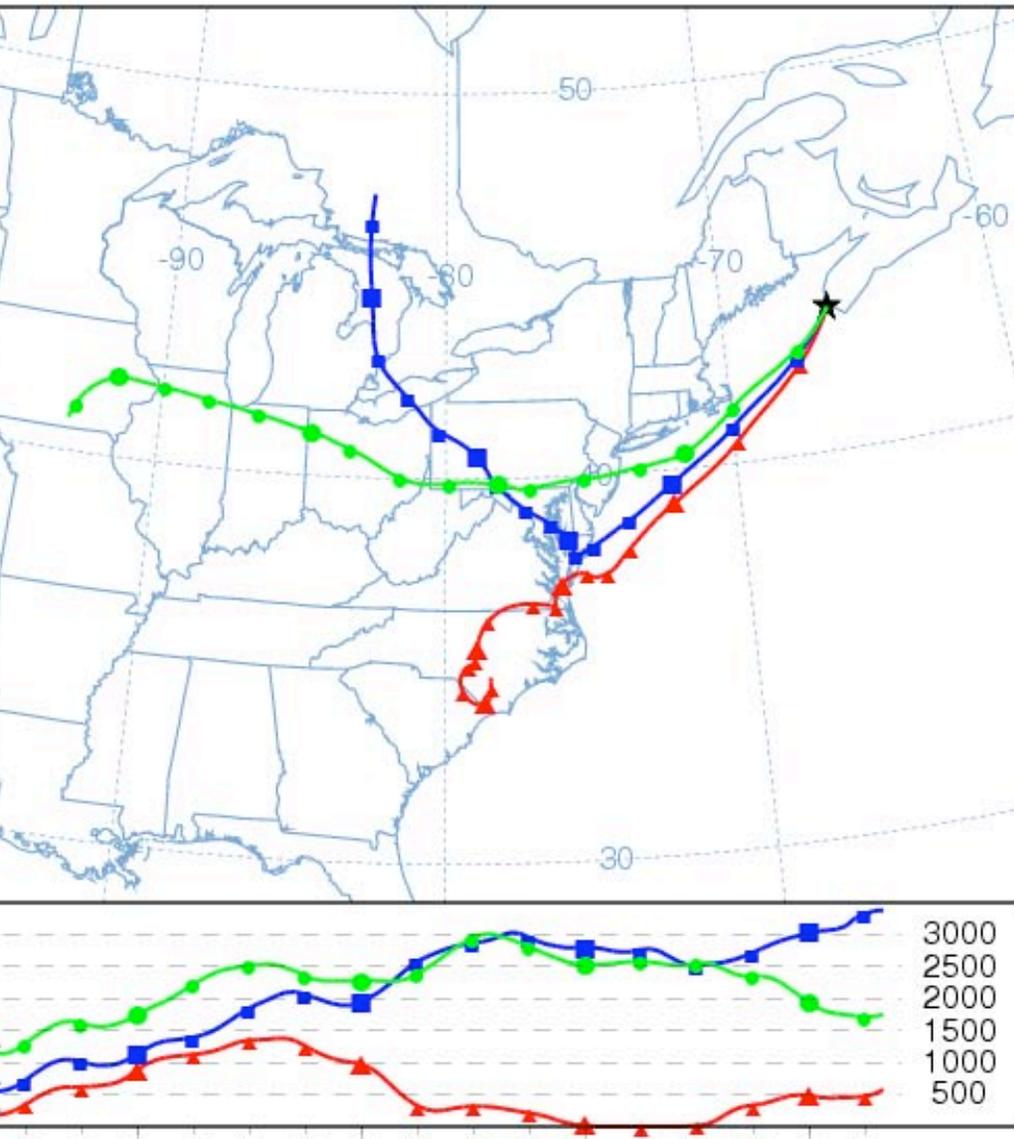
- Plume from Barrow, Alaska, July 11 12 UTC, Gulf Stream, July 7, France

Profile of Aerosol Event August 1



August 11 Trajectories

NOAA HYSPLIT MODEL
Backward trajectories ending at 16 UTC 11 Aug 04
EDAS Meteorological Data



NOAA HYS
Backward trajectories ending at 16 UTC 11 Aug 04
EDAS Meteorological Data



Summary

High-altitude, complex aerosol profile observed July 11

Attributed to boreal smoke advection from “Alaskan” fire

MODIS observations indicate the advection process completed roughly July 1

HYSPLIT back and forward trajectories indicate dynamical complications in the vicinity of Hudson Bay

Corresponding lidar observations at Barrow, Alaska indicate comparative altitudes for detected aerosols

August 11 aerosol event profiles of a single aerosol mass trajectory variation with starting altitude

A photograph of a city skyline at sunset or sunrise. The sky is filled with soft, horizontal clouds in shades of blue, purple, and orange. In the foreground, the dark silhouette of a large, rectangular building is prominent. Other smaller buildings are visible in the distance. The overall mood is serene and contemplative.

The End
Thank You